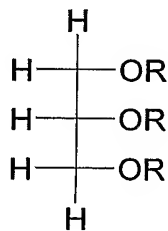
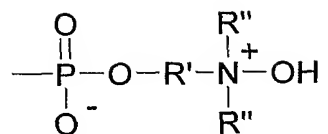


CLAIMS

1. An aqueous hydraulic fluid comprising, in addition to water, at least one phospholipid lubricant, wherein the hydraulic fluid comprises less than 20% by weight of an oil selected from a mineral oil, a synthetic hydrocarbon oil or any mixture thereof.
2. An aqueous hydraulic fluid as claimed in Claim 1 comprising water in an amount at least substantially 10% wt of the total weight of the hydraulic fluid.
3. An aqueous hydraulic fluid as claimed in Claim 1 or 2 comprising water in an amount of no more than substantially 95% wt of the total weight of the hydraulic fluid.
4. An aqueous hydraulic fluid as claimed in any preceding claim wherein the phospholipid lubricant comprises a phosphatide, especially having a structure



- wherein at least one R is a phosphorus containing group having the structure



and at least one R is a fatty acyl group; and

wherein R' is independently an alkyl group preferably  
 5 independently having from 1 to 12 carbon atoms and R''  
 is an alkyl group preferably independently having from  
 1 to 8 carbon atoms, more preferably from 1 to 4  
 carbon atoms.

5. An aqueous hydraulic fluid as claimed in Claim 4  
 10 wherein one R group is a phosphorus containing group  
 and two R groups are fatty acyl groups.
6. An aqueous hydraulic fluid as claimed in Claim 4 or 5  
 comprising at least one phosphatide selected from  
 phosphatidylcholine, phosphatidylinositol,  
 15 phosphatidylserine and phosphatidylethanolamine.
7. An aqueous hydraulic fluid as claimed in any preceding  
 claim comprising more than one phospholipid.
8. An aqueous hydraulic fluid as claimed in Claim 7  
 wherein the hydraulic fluid comprises  
 20 phosphatidylcholine, phosphatidylinositol and  
 phosphatidylethanolamine.
9. An aqueous hydraulic fluid as claimed in any preceding  
 claim wherein the total concentration of the or all of  
 the phosphalipid lubricants comprises at least  
 25 substantially 0.1% wt of the total weight of the  
 hydraulic fluid.

10. An aqueous hydraulic fluid as claimed in any preceding claim wherein the total concentration of the or all of the phospholipid lubricants comprises no more than substantially 30% wt of the total weight of the hydraulic fluid.
11. An aqueous hydraulic fluid as claimed in any preceding claim comprising a plant-derived lecithin comprising a mixture of phosphatides and/or phospholipids.
12. An aqueous hydraulic fluid as claimed in Claim 11 wherein the plant-derived lecithin is selected from soybean lecithin, castor lecithin, rapeseed lecithin, cottonseed lecithin and mixtures thereof.
13. An aqueous hydraulic fluid as claimed in Claim 12 wherein the plant-derived lecithin is soybean lecithin.
14. An aqueous hydraulic fluid as claimed in any one of Claims 11 to 13 wherein the plant-derived lecithin comprises at least 1% wt of the total weight of hydraulic fluid.
15. An aqueous hydraulic fluid as claimed in any preceding claim wherein the or each phospholipid, or mixture of phospholipids is substantially the sole lubricant in the hydraulic fluid.
16. An aqueous hydraulic fluid as claimed in any preceding claim further comprising at least one corrosion inhibitor.
17. An aqueous hydraulic fluid as claimed in Claim 16 wherein the corrosion inhibitor comprises an alkylamine or alkanolamine.

18. An aqueous hydraulic fluid as claimed in any preceding claim further comprising an anti-freeze additive.
19. An aqueous hydraulic fluid as claimed in Claim 18 wherein the anti-freeze additive is selected from a glycol compound, glycerol, or a glycerol ester.
20. An aqueous hydraulic fluid as claimed in any preceding claim comprising less than 10% wt of a mineral oil, synthetic hydrocarbon oil or mixture thereof.
21. An aqueous hydraulic fluid as claimed in Claim 20 comprising less than 1% wt of a mineral oil, synthetic hydrocarbon oil or mixture thereof.
22. An aqueous hydraulic fluid as claimed in Claim 20 or 21 comprising less than 0.1% wt of a mineral oil, synthetic hydrocarbon oil or mixture thereof.
23. An aqueous hydraulic fluid as claimed in any preceding claim which is substantially free of mineral oil, synthetic hydrocarbon oil and mixtures thereof.
24. An aqueous hydraulic fluid as claimed in any preceding claim substantially free of phosphorodithioates.
25. Use of an aqueous hydraulic fluid of any one of Claims 1 to 24 in an off-shore, mineral or mining drilling apparatus.